ENERGY SOLUTIONS

Empowering Smarter Energy Infrastructure

Resilient power and tailored solutions to meet your energy transition challenges.



Your partner for the energy transition



Engineering power, control & monitoring for energy infrastructure

Alpha Innovations develops and manufactures custom power solutions, monitoring platforms and integrated systems for energy producers, grid operators and energy-intensive sites. The shift toward renewables, microgrids and smarter energy management makes reliable power and control systems critical for generation, storage and distribution.

Our expertise combines power electronics, software, monitoring, control systems and integration capabilities to deliver complete solutions tailored to each application. From grid phase balancing and backup power for off-grid sites to the smart management of PV panels, batteries, wind farms and EV chargers, we transform complexity into reliable operational solutions.

Our mission is simple

To deliver resilient power and smart energy management that make your energy transition reliable and efficient.

Why choose Alpha Innovations?

Local agility. Global strength.

Alpha Innovations is part of the CE+T Group, an international technology group specialized in energy conversion, power electronics, BESS, monitoring, and energy management solutions. Founded in Belgium in 1934, CE+T has become a recognized global player delivering innovative energy solutions across critical industries worldwide.

Today, the group combines decades of engineering expertise with a strong innovation culture driven by research and development.

- €99 million consolidated turnover
- Approximately 400 employees worldwide
- 7 R&D centers
- 6 production sites
- More than 90 active patents
- International presence across Europe, America, Asia, the Middle East, and Australia

The strength of the group

Being part of CE+T Group gives Alpha Innovations access to a powerful ecosystem of complementary technologies.

Innovation-driven

More than 90 active patents and continuous investment in next-generation technologies.

Energy expertise

Proven experience in grid phase balancing, EV charging energy hubs, co-generation and building energy monitoring, and backup power for renewable and off-grid sites.

Long-term partnership

Financial strength, manufacturing capacity, and worldwide support capabilities ensure sustainable customer relationships.

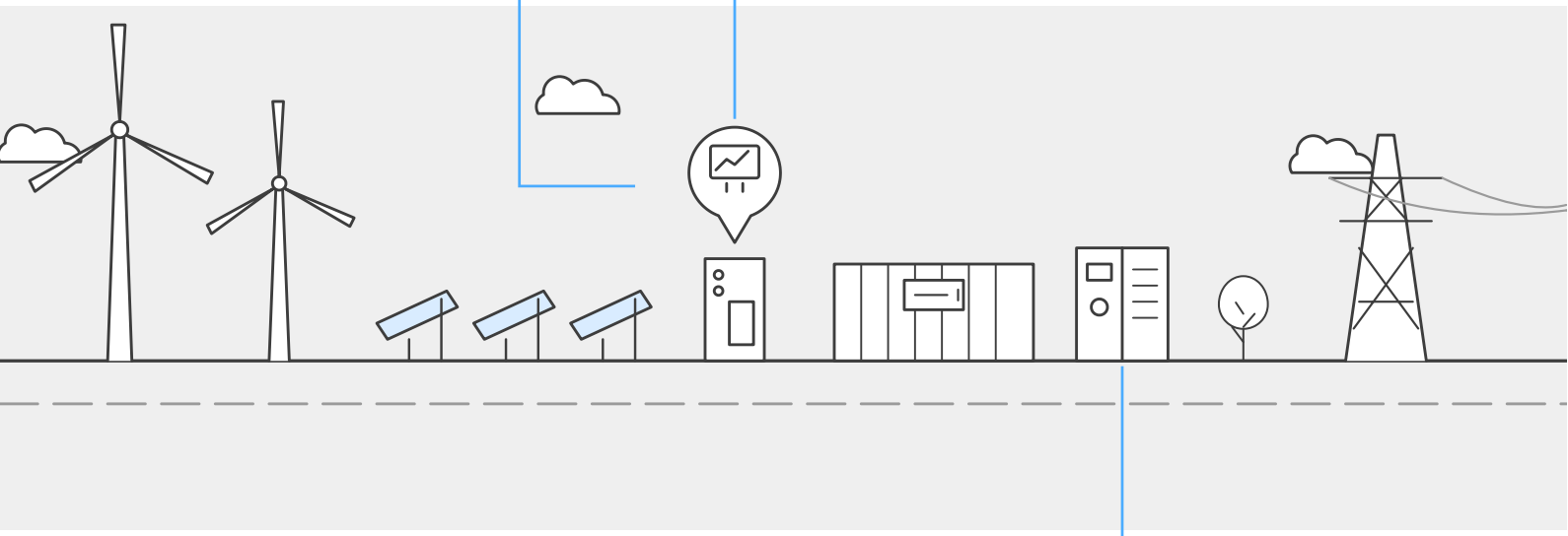
One ecosystem

The combined expertise of CE+T Power, JEMA, RIPEnergy, CE+T America, and Alpha Innovations enables the delivery of complete solutions from energy conversion to advanced monitoring and control.

Solutions for energy critical power

Smart monitoring & control

Real-time monitoring of generation, storage and distribution with COMPAS and Inview MESH, to optimize energy flows, enable predictive maintenance and support grid stability.

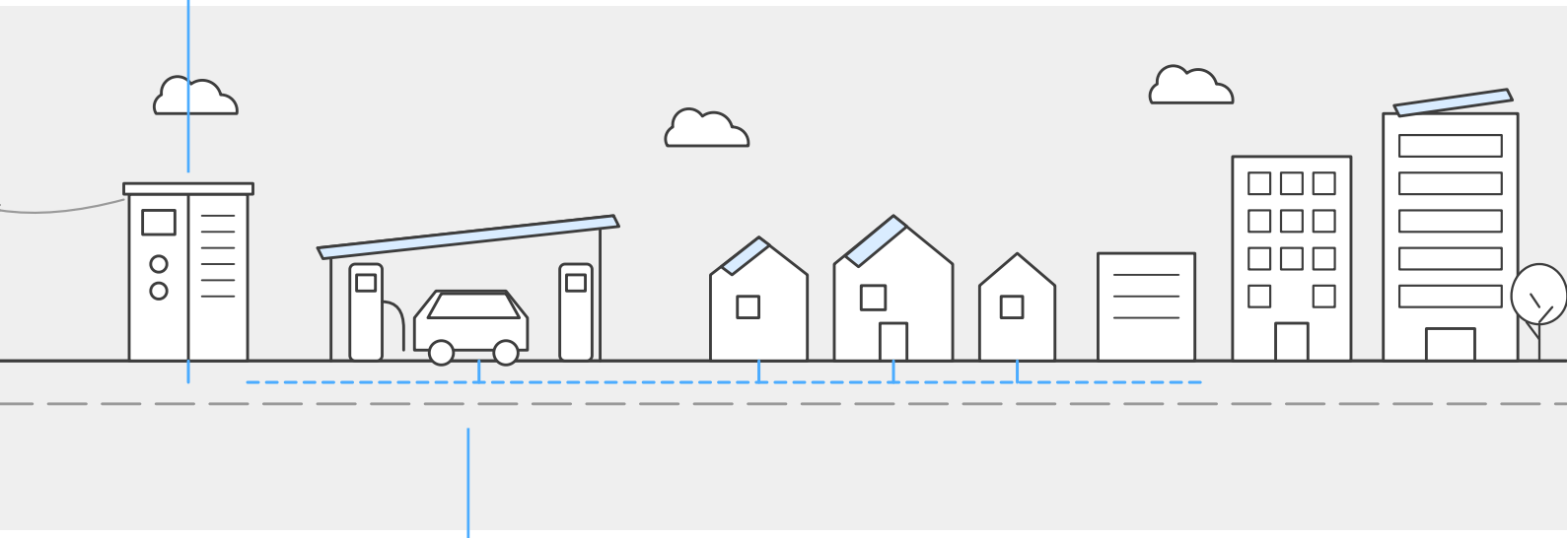


Backup power & energy security

Autonomous, redundant architectures for grid-critical infrastructure, remote renewable or off-grid sites, storage and microgrid systems, keeping supply uninterrupted when the grid fails.

Grid phase balancing

Power & control cabinets that automatically detect and correct voltage imbalances across the three phases of low-voltage networks.



EV charging energy hubs

Dynamic load balancing of EV chargers within contracted power limits, ready for solar, battery storage and Vehicle-to-Grid.

From data collection to energy optimization

Energy infrastructures generate vast amounts of operational data every day, from PV panels, wind farms and batteries to EV chargers and distribution networks. The challenge lies in transforming that data into actionable insights.
With COMPAS at the edge and Inview MESH in the cloud, Alpha Innovations gives energy operators complete visibility over generation, storage and distribution and improves decision-making in real time.



Our solutions enable customers to :

- Centralize data from multi-vendor energy assets
- Monitor generation, storage and distribution in real time
- Optimize energy flows and peak shaving
- Balance EV charging within contracted power limits
- Detect anomalies and inverter faults early
- Produce ESG and CSRD-ready reports

Intelligent monitoring at the edge

Our edge solutions are designed to operate on remote renewable and off-grid sites and provide real-time access to critical operational information, even without internet connectivity.

MODULAR | SCALABLE | BIDIRECTIONAL | REAL-TIME

MCU Oled



- 1U fits in 19" rack
- CAN, Ethernet, USB host & device extension

UCC



- 1U, 19" rack form factor
- CAN - RS485/232 - USB-A/B + ADIO cards

GALEO



- DIN Rail form factor
- Based on a Raspberry Pi
- Standard connectivity

Proven on our own industrial site

After installing rooftop solar panels and an 80 kWh battery at its production site in Louvain-la-Neuve (Belgium), Alpha Innovations needed continuous monitoring and control to keep the system efficient: safe battery charging and timely discharge, PV output checks, early inverter fault detection and the optimization of lighting, heating and EV charging.

Smart building energy monitoring

COMPAS, a hardware-agnostic gateway, connects sensors and equipment through standard protocols such as Modbus and MQTT. **Inview MESH** aggregates the data from multiple COMPAS gateways into one centralized platform.

MEASURE | ANALYZE | CONTROL | REPORT

COMPAS measures PV output, facility-wide and zone-level electricity use, and gas and water consumption. It also controls the battery, the inverter, factory lighting, stock-area heating and EV charging schedules. Inview MESH turns this data into real-time and historical dashboards, alerts and exportable compliance reports, supporting energy tracking, peak shaving and CSRD reporting.



-16%	-40%	-3.6 t	€4,000
electricity consumption	gas consumption	CO_2 emissions	financial savings per year

Integrated power & control solutions

Integrating complexity. Delivering reliability.

Our engineering teams design and manufacture customized power and control cabinets tailored to the specific requirements of energy producers, distribution system operators and energy-intensive sites.
From conventional plants to off-grid microgrids, our cabinets are built to cope with variable generation and demanding operating conditions while ensuring maximum availability, safety and performance.

Proven energy integration expertise

Our cabinets combine bidirectional power conversion, energy buffering, AC/DC distribution, grid decoupling, communication gateways, monitoring devices and control systems within a single robust platform. They are engineered to balance grids, secure supply and manage distributed assets such as PV panels, batteries, wind farms and EV chargers.
Each solution is custom-designed, assembled and tested in Belgium (functional, thermal, safety and EMC tests), with full support from feasibility study to commissioning and maintenance.

- Bidirectional power conversion (CE+T Sierra 25)
- Energy buffering & battery storage
- Synergrid-compliant grid decoupling
- Backup power for remote, renewable and off-grid sites
- Integrated monitoring (Inview X, Inview MESH)
- Open API integration with operator systems

Energy integration project

Power & control cabinet – grid phase balancing

EV charging and single-phase solar injection create voltage imbalances on low-voltage networks. For Belgian distribution system operators, we designed a cabinet that detects and corrects these imbalances automatically. Our solution ensures:

- Fewer consumer disconnections from voltage drops and overvoltages
- Autonomous operation, reducing the workload of field teams

Synergrid-certified components support Belgian grid-code compliance.

Closed-loop control

Belgian solar PV capacity has tripled since 2015 to over 11 GW, mostly single-phase residential installations.

1. Sensing

Voltage and current are measured continuously on every phase.

2. Decision

The embedded control system chooses the corrective action.

3. Execution

The Sierra 25 injects or absorbs power within milliseconds.

4. Oversight

Inview X locally, Inview MESH in the cloud, open API.

Three-phase sensors

Real-time voltage and current measurement on all phases

Inter-phase energy transfer

Surplus energy on overloaded phases is redirected to underloaded ones

CE+T Sierra 25

Synergrid-certified bidirectional converter executing power flows

Energy buffer

Absorbs short surges and releases energy to damp voltage fluctuations

Grid decoupling

Synergrid-compliant system managing flows between grid and local sources

Inview X touchscreen

Local display of phase voltages, currents and power flows

Inview MESH

Cloud supervision with open API integration into DSO systems

Energy management expertise

Turning parking lots into energy hubs

Interparking needed to manage thousands of EV charging stations across its parking sites in several European countries, without exceeding site power limits at peak hours and while preparing for Vehicle-to-Grid (V2G) and renewable integration.
Alpha Innovations deployed a hybrid edge-cloud energy management system: **COMPAS** on **GALEO** industrial controllers manages the chargers in real time on each site, and **Inview MESH** centralizes supervision, analytics and ESG reporting for all sites.

✓Thousands

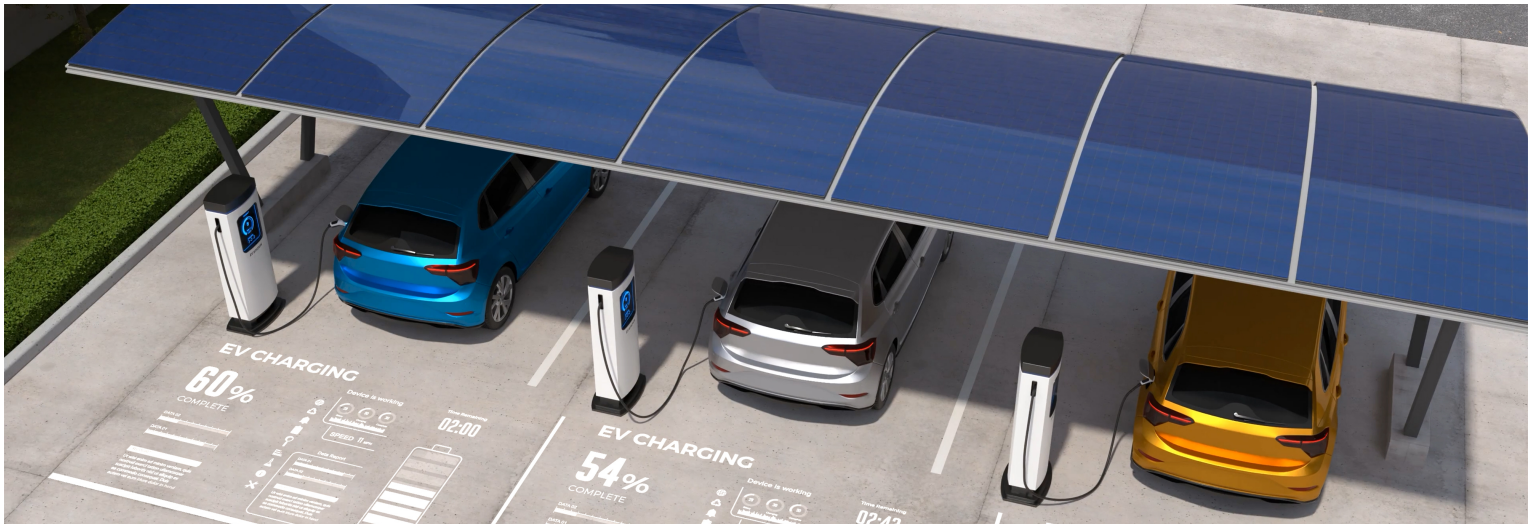
of EV charging stations managed

✓Multi-country

deployment across European parking sites

✓Any brand

hardware-agnostic: chargers and meters of any brand



Three pillars of a smart energy hub

- **Local edge control**

Dynamic load balancing allocates the available power so more vehicles charge at once within the contracted limit, even if the internet connection is lost.

- **Centralized cloud supervision**

All sites in one platform, with real-time monitoring, advanced analytics and ESG reporting.

- **Ready for what's next**

Designed for Vehicle-to-Grid, dynamic energy tariffs, solar integration and battery storage, with less grid reinforcement and lower peak charges.

Other use cases & news

USE CASE



Customer : Leading Dutch energy supplier
Application : Co-generation infrastructure optimization & monitoring
Country : Netherlands
Expertise : COMPAS & Inview MESH, multi-brand control

MONITORING

USE CASE



Customer : Distribution System Operators
Application : Automatic grid phase balancing
Country : Belgium
Expertise : Power & control cabinet, CE+T Sierra 25, Inview MESH

POWER & CONTROL CABINETS

USE CASE



Customer : Interparking
Application : EV charging energy hubs, dynamic load balancing
Country : Several European countries
Expertise : COMPAS edge control, Inview MESH, GALEO

MONITORING

USE CASE



Customer : Alpha Innovations (own site)
Application : Smart building monitoring, peak shaving & CSRD reporting
Country : Belgium
Expertise : COMPAS & Inview MESH, PV + 80 kWh battery

MONITORING

NEWS · OCTOBER 2025



From ARMADA to Inview MESH

Our energy asset management platform becomes Inview MESH: one multi-vendor cockpit to monitor and control solar inverters, batteries and EV chargers across all your sites, proven at the scale of thousands of devices.

PRODUCTS

NEWS · MARCH 2026



ISO 9001 certification renewed

Alpha Innovations renewed its ISO 9001 Quality Management certification, covering its power conversion systems and monitoring solutions. Every solution undergoes functional, thermal, safety and EMC testing before leaving production.

COMPANY NEWS



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